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NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
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NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
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NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
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NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 19	APOLLIT offering free connect time in April 2003
NEWS 28	Mar 20	EVENTLINE will be removed from STN
NEWS 29	Mar 24	PATDPAFULL now available on STN
NEWS 30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 31	Apr 11	Display formats in DGENE enhanced
NEWS 32	Apr 14	MEDLINE Reload
NEWS 33	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 34	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 35	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX

[illegible] CURRENT

[illegible]

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FILE 'HOME' ENTERED AT 12:15:15 ON 22 APR 2003

=> file ca, biosis, medline

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FILE 'BIOSIS' ENTERED AT 12:15:35 ON 22 APR 2003

FILE 'MEDLINE' ENTERED AT 12:15:35 ON 22 APR 2003

=> s thrombin?
L1 89993 THROMBIN?

=> s benzamidine?
L2 5481 BENZAMIDINE?

=> s aminobenzamidine?
L3 947 AMINOBENZAMIDINE?

=> s l2 or l3
L4 6167 L2 OR L3

=> s l1 (p) l4
L5 563 L1 (P) L4

=> s sodium chloride?
L6 162261 SODIUM CHLORIDE?

=> s calcium chloride?
L7 43501 CALCIUM CHLORIDE?

=> s l7 (p) l5
L8 3 L7 (P) L5

thrombin, [illegible] thrombomodulin (elTM) were examined by analytical ultracentrifugation at 23.3.degree. C in 100 mM NaCl, 50 mM Tris (pH 7.65), and 1 mM **benzamidine** in the presence of 0 to 5 mM **calcium**

chloride. **Thrombin** and elTM form a tight (Kd < 10-8 M) 1:1 complex in the absence of Ca2+ that weakens with the addition of Ca2+ (Kd .apprxeq. 4 .mu.M in 5 mM Ca2+). Without Ca2+ **thrombin** and protein C form a 1:1 complex (Kd .apprxeq. 1 .mu.M) and what appears to be a 1:2 **thrombin**-protein C complex. The Kd for the 1:1 complex weakens over 100-fold in 5 mM CaCl2. Protein C and elTM form a Ca2+-independent 1:1 complex (Kd .apprxeq. 80 .mu.M). Nearly identical binding to **thrombin** and elTM is observed when active-site-blocked activated bovine protein C is substituted for protein C. **Thrombin** inhibited by diisopropyl fluorophosphate and **thrombin** inhibited by a tripeptide chloromethyl ketone exhibited identical behavior in binding experiments, suggeesting that the accessibility of protein C to the substrate recognition cleft of thes two forms of **thrombin** is nearly equal. Human protein C binds with lower affinity than bovine protein C. Ternary mixtures also were examined. Protein C, elTM and **thrombin** form a 1:1:1 complex which dissociates with increasing [Ca2+]. In the absence of Ca2+, protein C binds to the elTM-**thrombin** complex with an apparent Kd .apprxeq. 1 .mu.M. Nearly identical binding to elTM-**thrombin** was observed for activated protein C and protein C, suggesting that there is little discrimination between substrate and product. This wa confirmed kinetically. Activated protein C is a potent inhibitor of its own formation both by **thrombin** alone (Ki .apprxeq. 0.5 .mu.M) and by **thrombin** bound to elTM (Ki .apprxeq. 4 .mu.M). Bovine protein C lacking the 41 amino acid .gamma.-carboxyglutamic acid containing peptide (Gla domain) exhibited virtually no interaction with either elTM or elTM-**thrombin**, whereas the Gla domain competed effectively and specifically with protein C in these interactions. Finally, binding of the Gla domain to elTM-**thrombin** was observed. These results indicate that the Gla domain may be involved directly in the binding of protein C to both **thrombin** and elTM.

AN 1992:162144 BIOSIS
DN BA93:84469
TI CALCIUM DEPENDENCE OF THE INTERACTIONS BETWEEN PROTEIN C THROMBIN AND THE ELASTASE FRAGMENT OF THROMBOMODULIN ANALYSIS BY ULTRACENTRIFUGATION.
AU OLSEN P H; ESMON N L; ESMON C T; LAUE T M
CS DEP. BIOCHEM., SPAULDING LIFE SCI. BUILD., UNIV. NEW HAMPSHIRE, DURHAM, N.H. 03824.
SO BIOCHEMISTRY, (1992) 31 (3), 746-754.
CODEN: BICHAW. ISSN: 0006-2960.
FS BA; OLD
LA English

L8 ANSWER 2 OF 3 MEDLINE
AB The two-way and three-way interactions among active-site-blocked bovine **thrombin**, bovine protein C, and the elastase fragment of rabbit thrombomodulin (elTM) were examined by analytical ultracentrifugation at 23.3 degrees C in 100 mM NaCl, 50 mM Tris (pH 7.65), and 1 mM **benzamidine**, in the presence of 0 to 5 mM **calcium chloride**. **Thrombin** and elTM form a tight (Kd less than 10(-8) M) 1:1 complex in the absence of Ca2+ that weakens with the addition of Ca2+ (Kd approximately 4 microM in 5 mM Ca2+). Without Ca2+, **thrombin** and protein C form a 1:1 complex (Kd approximately 1 microM) and what appears to be a 1:2 **thrombin**-protein C complex. The Kd for the 1:1 complex weakens over 100-fold in 5 mM CaCl2. Protein C and elTM form a Ca(2+)-independent 1:1 complex (Kd approximately 80

[redacted] thrombin and elTM is

[redacted]

suggesting that the accessibility of protein C to the substrate recognition cleft of these two forms of **thrombin** is nearly equal. Human protein C binds with lower affinity than bovine protein C.

Ternary mixtures also were examined. Protein C, elTM, and **thrombin** form a 1:1:1 complex which dissociates with increasing [Ca2+]. In the absence of Ca2+, protein C binds to the elTM-**thrombin** complex with an apparent Kd approximately 1 microM. (ABSTRACT TRUNCATED AT 250 WORDS)

AN 92118881 MEDLINE
DN 92118881 PubMed ID: 1310045
TI Ca2+ dependence of the interactions between protein C, thrombin, and the elastase fragment of thrombomodulin. Analysis by ultracentrifugation.
AU Olsen P H; Esmon N L; Esmon C T; Laue T M
CS Department of Biochemistry, University of New Hampshire, Durham 03824.
NC R01 HL29807 (NHLBI)
R37 HL30340 (NHLBI)
SO BIOCHEMISTRY, (1992 Jan 28) 31 (3) 746-54.
Journal code: 0370623. ISSN: 0006-2960.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199202
ED Entered STN: 19920315
Last Updated on STN: 20000303
Entered Medline: 19920225

L8 ANSWER 3 OF 3 MEDLINE
AB Partially purified human antihemophilic factor (AHF, factor VIII), when treated with high concentrations of salt, has been shown to dissociate into two components: one, of relatively low molecular weight, possesses procoagulant activity, and the other, of higher molecular weight, forms precipitates with heterologous antiserum against AHF and supports ristocetin-induced platelet aggregation. The ease of separation suggests that the two components in the native state might be held together by noncovalent bonds. Earlier observations do not exclude the possibility that the subunits may be covalently bonded in nature but might be severed by plasma proteolytic enzymes during laboratory manipulation. The issue was examined by preparing partially purified AHF from fresh human plasma in the presence of protease inhibitors, including **benzamidine**, soybean trypsin inhibitor, epsilon-aminocaproic acid, heparin, and hirudin. Under these conditons, gel filtration in the presence of 0.25 M **calcium chloride** and 0.001 M **benzamidine** resulted in its separation into two components, having properties identical to those separated in the absence of these protease inhibitors. The inhibitor mixture blocked generation and action of streptokinase- and kaolin-activated plasmin from plasma, and protected both plasma AHF and partially purified AHF from the action of **thrombin**. Surface-induced activation of PTA factor XI) was partially inhibited, and that of Christmas factor (factor IX) was completely inhibited. This observation provides further evidence that in the native state the high and low-molecular-weight components of preparations of antihemophilic factor are held together by noncovalent bonds.

AN 76232701 MEDLINE
DN 76232701 PubMed ID: 947407
TI Evidence that functional subunits of antihemophilic factor (Factor VIII) are linked by noncovalent bonds.
AU Poon M C; Ratnoff O D
SO BLOOD, (1976 Jul) 48 (1) 87-94.
[illegible]

EM 19[illegible]
ED Entered STN: 19900313
Last Updated on STN: 19900313

Entered Medline: 19761001

=> d his

(FILE 'HOME' ENTERED AT 12:15:15 ON 22 APR 2003)

FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 12:15:35 ON 22 APR 2003
L1 89993 S THROMBIN?
L2 5481 S BENZAMIDINE?
L3 947 S AMINOBENZAMIDINE?
L4 6167 S L2 OR L3
L5 663 S L1 (P) L4
L6 162261 S SODIUM CHLORIDE?
L7 43501 S CALCIUM CHLORIDE?
L8 3 S L7 (P) L5

=> s l6 (p) l5
L9 5 L6 (P) L5

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 2 DUP REM L9 (3 DUPLICATES REMOVED)

=> 1-2 ab,bib
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"HELP COMMANDS" at an arrow prompt (=>).

=> d 1-2 ab,bib

L10 ANSWER 1 OF 2 CA COPYRIGHT 2003 ACS DUPLICATE 1
AB Com. prepns. of fibrin glue use a **thrombin** of equine or bovine origin. To remove the problems of antigenicity a method of purifn. from acidified plasma was developed. The affinity chromatog. on **benzamidine** Spherodex was used and three methods of elution compared: nonspecific (**sodium chloride** gradient) and biospecific competitors (arginine methyl ester or **benzamidine**). The yield obtained is between 64 and 84% and the purifn. factor close to 160. The **thrombin** obtained is better than animal **thrombin** in the prepns. of fibrin glue.
AN 114:57904 CA
TI Isolation by affinity chromatography with a silica support, of human thrombin for use in the preparations of fibrin glue
AU Allary, Michel; Boschetti, Egisto; Lorne, Jean Luc
CS Cent. Transfus. Sang. Armees Jean-Julliard, Clamart, F 92140, Fr.
SO Annales Pharmaceutiques Francaises (1990), 48(3), 129-35
CODEN: APFRAD; ISSN: 0003-4509
DT Journal
LA French

L10 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AB Biological glue is obtained by mixing different specific plasma proteins including a serine protease, **thrombin**. Surprisingly at present the **thrombin** used in such a mixture is from equine or bovine

[redacted]

benzamidine
Spherodex followed by an elution with non specific **sodium chloride** gradient) or biospecific competitors (arginin methylester or benzamidin). The obtained **thrombin** with a yield close to 80*

and a purification factor close to 160, showed good properties in the replacement of animal **thrombin** in the condition of biological glue.

AN 1991:88025 BIOSIS
DN BA91:46915
TI PURIFICATION OF HUMAN THROMBIN BY AFFINITY CHROMATOGRAPHY WITH A VIEW TO UTILIZATION IN BIOLOGICAL GLUES.
AU LORNE J L; ALLARY M; BOSCHETTI E
CS CENT. TRANSFUSION SANGUINE ARMEES "JEAN-JULLIARD" 1, LIEUTENANT RAOUL-BATANY, 92140 CLAMART.
SO REV FR TRANSFUS HEMOBIOL, (1989) 32 (5), 391-402.
CODEN: RFTHE4.
FS BA; OLD
LA French

=> d his

(FILE 'HOME' ENTERED AT 12:15:15 ON 22 APR 2003)

FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 12:15:35 ON 22 APR 2003
L1 89993 S THROMBIN?
L2 5481 S BENZAMIDINE?
L3 947 S AMINOBENZAMIDINE?
L4 6167 S L2 OR L3
L5 663 S L1 (P) L4
L6 162261 S SODIUM CHLORIDE?
L7 43501 S CALCIUM CHLORIDE?
L8 3 S L7 (P) L5
L9 5 S L6 (P) L5
L10 2 DUP REM L9 (3 DUPLICATES REMOVED)

=> s (amino acid?) or sugar? or (sugar alcohol?)
L11 1799445 (AMINO ACID?) OR SUGAR? OR (SUGAR ALCOHOL?)

=> s l11 (p) l5
L12 66 L11 (P) L5

=> s buffer?
L13 390188 BUFFER?

=> s l12 and l13
L14 0 L12 AND L13

=> s l6 or l7
L15 196592 L6 OR L7

=> s l15 and l12
L16 1 L15 AND L12

=> d

L16 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1992:162144 BIOSIS
DN BA93:84469
TI CALCIUM DEPENDENCE OF THE INTERACTIONS BETWEEN PROTEIN C THROMBIN AND THE

[illegible]
CODEN: BICHAW. ISSN: [illegible]
FS BA; OLD
LA English

=> d ab,bib

L16 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB The two-way and three-way interactions among active-site-blocked bovine **thrombin**, bovine protein C, and the elastase fragment of rabbit thrombomodulin (elTM) were examined by analytical ultracentrifugation at 23.3.degree. C in 100 mM NaCl, 50 mM Tris (pH 7.65), and 1 mM **benzamidine**, in the presence of 0 to 5 mM **calcium chloride**. **Thrombin** and elTM form a tight (Kd < 10-8 M) 1:1 complex in the absence of Ca2+ that weakens with the addition of Ca2+ (Kd .apprxeq. 4 .mu.M in 5 mM Ca2+). Without Ca2+ **thrombin** and protein C form a 1:1 complex (Kd .apprxeq. 1 .mu.M) and what appears to be a 1:2 **thrombin**-protein C complex. The Kd for the 1:1 complex weakens over 100-fold in 5 mM CaCl2. Protein C and elTM form a Ca2+-independent 1:1 complex (Kd .apprxeq. 80 .mu.M). Nearly identical binding to **thrombin** and elTM is observed when active-site-blocked activated bovine protein C is substituted for protein C. **Thrombin** inhibited by diisopropyl fluorophosphate and **thrombin** inhibited by a tripeptide chloromethyl ketone exhibited identical behavior in binding experiments, suggesting that the accessibility of protein C to the substrate recognition cleft of thes two forms of **thrombin** is nearly equal. Human protein C binds with lower affinity than bovine protein C. Ternary mixtures also were examined. Protein C, elTM and **thrombin** form a 1:1:1 complex which dissociates with increasing [Ca2+]. In the absence of Ca2+, protein C binds to the elTM-**thrombin** complex with an apparent Kd .apprxeq. 1 .mu.M. Nearly identical binding to elTM-**thrombin** was observed for activated protein C and protein C, suggesting that there is little discrimination between substrate and product. This wa confirmed kinetically. Activated protein C is a potent inhibitor of its own formation both by **thrombin** alone (Ki .apprxeq. 0.5 .mu.M) and by **thrombin** bound to elTM (Ki .apprxeq. 4 .mu.M). Bovine protein C lacking the 41 **amino acid** .gamma.-carboxyglutamic acid containing peptide (Gla domain) exhibited virtually no interaction with either elTM or elTM-**thrombin**, whereas the Gla domain competed effectively and specifically with protein C in these interactions. Finally, binding of the Gla domain to elTM-**thrombin** was observed. These results indicate that the Gla domain may be involved directly in the binding of protein C to both **thrombin** and elTM.

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DN BA93:84469

TI CALCIUM DEPENDENCE OF THE INTERACTIONS BETWEEN PROTEIN C THROMBIN AND THE ELASTASE FRAGMENT OF THROMBOMODULIN ANALYSIS BY ULTRACENTRIFUGATION.

AU OLSEN P H; ESMON N L; ESMON C T; LAUE T M

CS DEP. BIOCHEM., SPAULDING LIFE SCI. BUILD., UNIV. NEW HAMPSHIRE, DURHAM, N.H. 03824.

SO BIOCHEMISTRY, (1992) 31 (3), 746-754.
CODEN: BICHAW. ISSN: 0006-2960.

FS BA; OLD

LA English

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=> d his

     (FILE 'HOME' ENTERED AT 12:15:15 ON 22 APR 2003)

     FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 12:15:35 ON 22 APR 2003
L1         89993 S THROMBIN?
L2          5481 S BENZAMIDINE?
L3           947 S AMINOBENZAMIDINE?
L4          6167 S L2 OR L3
L5           663 S L1 (P) L4
L6        162261 S SODIUM CHLORIDE?
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L8             3 S L7 (P) L5
L9             5 S L6 (P) L5
L10            2 DUP REM L9 (3 DUPLICATES REMOVED)

=>
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L10 ANSWER 1 OF 2 CA COPYRIGHT 2003 ACS DUPLICATE 1
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AN 114:57904 CA
TI Isolation by affinity chromatography with a silica support, of human thrombin for use in the preparations of fibrin glue
AU Allary, Michel; Boschetti, Egisto; Lorne, Jean Luc
CS Cent. Transfus. Sang. Armees Jean-Julliard, Clamart, F 92140, Fr.
SO Annales Pharmaceutiques Francaises (1990), 48(3), 129-35
CODEN: APFRAD; ISSN: 0003-4509
DT Journal
LA French

L10 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AB Biological glue is obtained by mixing different specific plasma proteins including a serine protease, **thrombin**. Surprisingly at present the **thrombin** used in such a mixture is from equine or bovine origin while all other components are from human. In this paper we describe a particular efficient and specific chromatographic method for the purification of human **thrombin** usable as a serine protease in the preparation of biological glue. A pure and active **thrombin** is obtained fom a plasma fraction after adsorption on **benzamidine** -Spherodex followed by an elution witb non specific (**sodium chloride** gradient) or biospecific competitors (arginin methylester or benzamidin). The obtained **thrombin** with a yield close to 80% and a purification factor close to 160, showed good properties in the replacement of animal **thrombin** in the condition of biological glue.
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DN BA91:46915
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SO REV FR TRANSFUS HEMOBIOL, (1989) 32 (5), 391-402.
CODEN: RFTHE4.
FS BA; OLD
LA French

=>

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L8	13 same 14	13	L8
L7	sodium chloride	120421	L7
L6	calcium chloride	41145	L6
L5	buffer	571106	L5
L4	sugar or sugar alcohol or amino acid	321302	L4
L3	11 same 12	240	L3
L2	thrombin	15743	L2

END OF SEARCH HISTORY